



# Bulletin of the North Staffordshire Group of the Geologists' Association Number 112 : January 2015



## Winter Lecture Programme 2014/15

Lectures are held in room WS0.06 William Smith Building, Keele University

Thursday 15 January at 7:30pm :

**'Dinosaur Embryos'**

Speaker: Dr John Nudds (Manchester)

### Exceptional Preservation of Dinosaur Eggs and Embryos from the Upper Cretaceous of Henan Province, People's Republic of China.

Dinosaur embryos within their eggs are incredibly rare and are known from only a few localities across the globe. By far the best specimens are a collection of about 20 *in ovo* embryos from the Upper Cretaceous of Henan Province in the People's Republic of China. These have been revealed in minute detail by a complex technique of acid dissolution of surrounding matrix. Conventional microscopy has now elucidated the morphology of these animals, and they have been identified with the therizinosaurid dinosaurs, an enigmatic group of uncertain affinities, but which might hold vital clues to the phylogeny of Dinosauria as a whole. Current, and on-going, examination of the embryos by the use of synchrotron radiation (using the European Synchrotron Radiation Facility [ESRF] in Grenoble) now enables virtual removal of all matrix so that the minute bones can be examined in 3D and from all angles. Some of the results are quite remarkable !



Image: John Nudds

*The committee invites you to join them for a meal at 6pm in the "The Refectory" (formerly Comus) to entertain the speaker before this lecture. There is a main course choice of Chicken Brest filled with Stilton & Walnut Mousse, Port Wine Sauce or Tempura of Vegetables with Sweet & Sour Sauce & Noodles (both with broccoli, carrots and potatoes - £8.40). Please make your own booking with The Refectory (01782 734121) mentioning that you wish to join the NSGGA group, before 5pm on Tuesday 13 January.*

**Thursday 19 February at 7:30pm :** **'Sinking Cities'**  
**Speaker: Dr Tony Waltham (formerly Nottingham-Trent)**

### Ground Subsidence and Sinking Cities



Image: [floodlondon.com](http://floodlondon.com)

Regional subsidence, on a scale such that a large part of a city slowly descends to lower levels, is almost always due to excessive groundwater abstraction with declining water tables that impact on compressible clay. Compaction of the clay and the amount of ground subsidence depend on clay type, clay thickness and amount of water table decline. The subsidence can be greatly reduced or stopped (but not reversed) by controlling abstraction and inducing water table rise. Mexico City holds the records for the amount of subsidence, and

Bangkok currently has the greatest rate of sinking. Venice has subsided very little, but its critical position virtually at sea level now demands unusual remedies and expensive engineering works. Variations of the same process are subsidence on dewatered peat as at New Orleans (with the well know consequence of flooding during Hurricane Katrina), and subsidence due to oilfield exploitation as at Los Angeles.

*This lecture will be preceded by a sherry reception and buffet (cost £12) from 6pm. If you wish to attend the buffet please complete and return the flyer on page 17 of the bulletin by **January 23***

**Thursday 12 March at 7:00pm :** **AGM & 'Tunisian Tales Part II'**  
**Speaker: Dr Patrick Cossey (Chair's Address)**

### Summer Field Programme 2015

*Each person attending field meetings does so at their own risk. The NSGGA has public liability insurance through a GA insurance policy that also carries limited personal accident cover for members attending meetings or field trips. Non-members pay £2 to cover temporary membership giving them insurance cover. A field fee of £2 per head is normally charged for members and non-members to cover the leader's expenses.*

The field programme is still in development but we hope to run the following trips. More details in the next bulletin.

**April: National Stone Centre & Black Rock**  
**May: West Wales Weekend**  
**May/June: Congleton Edge**  
**July: Bonsall**

## Ted Watkin

It is with great sadness that the NSGGA records the death of Ted Watkin.

He was a stalwart of the group having joined in 1950, just 2 years after our founding. He remained an honorary member of the committee until recently and still attended many of the lectures.

He will be sadly missed.

*David Osborn*

## Join the NSGGA Committee

At the March AGM we shall be electing the committee for 2015/16. We are in particular need of new blood on the NSGGA committee and if you are interested in standing for any position then please contact the Chair, Pat Cossey, before the committee meeting on January 22.

## Membership Renewal 2015

If you haven't renewed your 2015 subscription yet, please do so as soon as possible using the form at the end of the bulletin.

### New: Schools, Academies & Colleges Membership

The NSGGA now welcomes group membership applications from teachers in educational establishments (schools, academies and colleges etc.) for specifically nominated year groups (typically a specific class). 'Educational Group Membership' (EGM) entitles registered group members to many of the benefits enjoyed by other members (the receipt of our quarterly bulletin and attendance at winter lectures, for example) subject to certain conditions and limitations (see below). Attendance at NSGGA field excursions or the Christmas Social would be by special arrangement. It is hoped that by introducing this new category of membership, the NSGGA can engage a wider audience, especially aimed at younger persons without radically affecting the experience for its existing members. Given time, and with experience, it is hoped that at least some of EGM restrictions detailed here can be eased or lifted.

- Applications for EGM must be made by a specifically 'nominated teacher' from the educational establishment concerned.
- The 'nominated teacher' will, at the time of application, supply a list of the names of all those individuals within the specific year group to whom the application for membership applies.

### Entitlement Restrictions

- Quarterly bulletins of the NSGGA will be distributed to EGMs via the 'nominated teacher' who will be responsible for onward circulation to individuals in his / her registered group.

- Under 18s from registered educational groups attending NSGGA events must be accompanied by a CRB checked teacher (normally the 'nominated teacher') or equivalent person from the registered institution, or the parent of an individual from a registered educational group.
- Attendance at NSGGA lectures would be by prior arrangement with the secretary at least two weeks in advance of the lecture and subject to a maximum numbers limit (the limit being subject to negotiation with the secretary but normally, and at least initially, no more than 12 per registered educational establishment. Larger groups would require us to change lecture venue so much more prior notice would be required.)
- EG members are not entitled to vote at AGMs.

Field excursions and the Christmas Social for registered educational groups would be by special arrangement (with no automatic entitlement of attendance at any NSGGA excursion or social as advertised in the Bulletin). Separate and customised field excursions for such groups could be organised by teachers from registered educational groups with the assistance of NSGGA members on request.

Education Group Membership forms can be found on the NSGGA website [www.esci.keele.ac.uk/nsgga/group.html](http://www.esci.keele.ac.uk/nsgga/group.html).

*Ian Stimpson*

## The Local Groups' Meeting of the GA and the Festival of Geology



The Festival of Geology at UCL

On Friday 31st October 2014 David and Janet Osborn, representing the North Staffordshire Group of the GA, attended the annual Local Groups' meeting of the GA at Burlington House, Piccadilly. The meeting was opened by Haydon Bailey, President of the GA. A number of topics were discussed including the involvement of the GA in local events. Groups need to let the GA know when these will take place. Joint meetings with other groups are always interesting and are encouraged within the GA allowing interaction with other members.

Among the topics discussed were:

Geolab - which was introduced by Haydon Bailey at last year's meeting is to have its first group involvement by West Sussex. West Sussex will try this first during Science Week in March 2015. This will then be used as a template. If groups wish to participate then they need to find locations and Haydon Bailey will look into providing facilitators and liaison.

Lesley Dunlop reported that the previous week has seen the launch of the Geodiversity Charter for England which is working towards links with Tourism/Industry/Education etc. It now has to be implemented. See website - [www.englishgeodiversityforum.org](http://www.englishgeodiversityforum.org). There is a need to get geodiversity into the mainstream. It can link in with National Trust/Wildlife Trust. There is a discussion to bring back the aggregates levy and this could be utilised to stimulate projects. Groups should let the President know of any local initiatives.

They are also working to put on line copies of free geology leaflets so that members visiting a particular area can access this information.

In line with the forthcoming anniversary of William Smith's map an original can be seen in the reception area of the Geological Society. (See photo). Just go through the front door of the Geological Society on Piccadilly and ask at reception to see it. If you are in the area it is well worth a visit.



The following day we attended the Festival of Geology at UCL. This is a family friendly event with a series of lectures during the day. This year two of the lectures were given by Professor Peter Styles on shale gas, which we attended, and Dr Iain Stewart on oil. There was also Rockwatch, building stone walks, a photographic competition and many stalls many run by local societies but also the opportunity to purchase items and a BGS stall selling maps etc. with discounts.

This is an opportunity to meet members of other groups. We had a positive visit to the Teme Valley stall who provided us with information that will hopefully lead to a joint field trip with them. Steve Alcock has the information and will be working on this. The whole day is an opportunity to get to know what other societies have to offer which will hopefully lead to field trips/lectures in the future.

There will be another Local Groups meeting and Festival of Geology early November 2015.

*Janet and David Osborn*

## NSGGA/GCStaffs Photographic Competition 2014

The theme for our second photographic competition was UK and Irish Geological Sites (Geosites) since the Geological Society of London and partner organisations were celebrating our geo-heritage by launching a list of 100 Great Geosites across the UK and Ireland as part of Earth Science Week 2014. The GSL's selection can be found at [www.geolsoc.org.uk/100geosites](http://www.geolsoc.org.uk/100geosites) including an interactive map.

There were 30 entries in all this year and these were whittled down to 12 by the judging panel of Pat Cossey, Rosie Duncan and Richard Waller. These dozen images were then voted on by the attendees at the Christmas Social. Congratulations to Tony Marks for his winning image of the South Wales Jurassic coast. Runner-up was Ian Stimpson with a photograph of Thornton Force.



The winner of the 2014 NSGGA/GCStaffs Photo Competition. This is the South Wales Jurassic coast - location is a few hundred metres west of Cwm Nash. Gently eastward dipping Lias formations and South Wales' answer to the sphinx! Image: Tony Marks

*Ian Stimpson*

### Field Trip Report

**The Geology of Keele Campus. Thursday June 16, 2014, Leader Ian Stimpson.**

A group of some 16 members and friends met outside the William Smith Building on a very pleasant summer evening. During a preliminary briefing, our leader described the geological setting of Keele and introduced us to the latest stratigraphical terminology for the Upper Carboniferous. We were informed that,

although few natural rock exposures are present on campus, the University's elevated location afforded excellent vantage points from which interpretations could be made of the surrounding landscape. Before setting off on a three mile campus walk, our attention was drawn to an adjacent erratic boulder of granodiorite, glacially transported to Staffordshire from Dalbeattie in Scotland. This was discovered during the construction of a car park at the University and is one of many glacial erratics which occur in the area. Another notable example (the microgabbroic "Otter Rock") was featured in Bulletin No. 109 (April 2014). Collectively these far-travelled erratics help to reconstruct directions of ice movement during the Quaternary glaciations.



Figure 1. Preliminary briefing outside the William Smith Building.

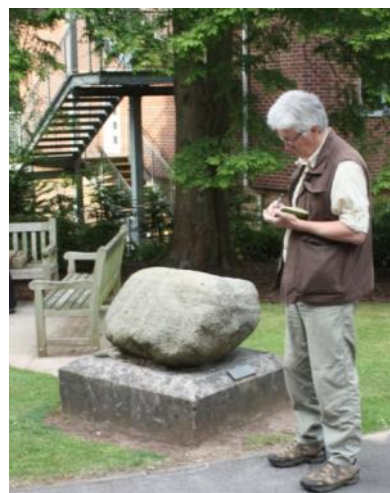


Figure 2. Glacial erratic.

Walking through the William Smith Building, we paused briefly to examine some large rock specimens including a 1.04 m diameter borehole core of Triassic sandstone showing reptilian footprints and some fine slabs of polished crinoidal Carboniferous limestone from the Peak District. Outside the building, numerous quartzitic "Bunter" pebbles from the local Sherwood Sandstone Group conjured up a mental picture of Triassic river systems transporting gravels all the way from Brittany to the English Midlands and beyond. Across the road, on the outside of the Dorothy Hodgkin Building, interest focussed on polished slabs of green-coloured rock used to face parts of the building. These displayed a range of sedimentary structures including mud intraclasts and were identified as volcaniclastic deposits quarried from the Borrowdale area of Cumbria. Peter Floyd explained that volcanic ash had settled in shallow water during the Ordovician period and that subsequent slumping had caused deformation of the layering.

Proceeding eastwards towards Union Square and down a glacial palaeovalley, we noted that Staffordshire Blue bricks (derived from mudstones in the Etruria Formation) had been extensively used in the construction of Keele Chapel. We then walked north-westwards along Barnes Hall Road and stopped near the sports fields to examine features of geological significance in the modern landscape. Ian pointed out a subdued linear topographic feature crossing the sports field, gaps of up to 30 mm wide between some of the roadside kerbstones, and distortions in a nearby metal fence. These features were attributed to displacement by a fault which last moved as recently as 1978 and caused some localised structural damage. Discussion centred on whether the fault movement was due to neotectonics or to mining subsidence.



Figure 3. Members discuss the evidence for recent fault movement.

We then walked through the northern part of the campus and passed numerous examples of the use of reconstituted geological materials in the construction of modern buildings. Our next stop was on University Avenue adjacent to the Main Entrance. From here we had an excellent view in a northerly direction across the Potteries Coalfield. Ian pointed out a number of significant geological and landscape features including dominant outcrops, the line of the Apedale Fault, the location of a Lower Carboniferous volcano and a prominent glacial meltwater channel at Silverdale.



Figure 4. View of the landscape to the north and north-east of Keele.

Turning southwards and proceeding past the Home Farm Sustainability Hub we learnt about the Keele Coal Bed Methane Project, a proposal to extract natural methane from coal seams present beneath the campus. We also noted that blocks of Chatsworth Grit from the northern part of the North Staffordshire syncline had been used as markers along the Keele planetary trail, a scale model of the solar system. On reaching the elevated location of Saturn, we had fine views towards the Peak District. Our penultimate destination was Keele Hall where red and pale Triassic sandstones from Hollington Quarry, Staffordshire have been used as construction materials. In contrast, the courtyard is paved with sets of granodiorite



from Leicestershire together with black basalt sets. From the elevated lawned gardens to the rear, we had excellent views across a lowland glaciated landscape.



Figure 5. Study of building stones displayed at Keele Hall.



Figure 6. View southwards from the rear of Keele Hall.

The field trip ended with a walk through splendid landscaped gardens to the Clock House constructed from local Butterton Sandstone (Upper Carboniferous) at the southern margin of the campus. From the terrace walkway, there were distance views to the Wrekin in Shropshire. Dr Patrick Cossey proposed a vote of thanks to Ian for such an informative and enjoyable walk around the campus. With so much to see and discover, this excursion was definitely for those who enjoy interesting geological experiences in unexpected locations.



Figure 7. Members admire the view from the terrace walkway, adjacent to the Clock House, at the end of the field trip

Peter Jones

## The David B. Thompson Fieldwork Archive

As a tribute to the life and work of David B. Thompson (1932 – 2013), the North Staffs Group of the Geologists' Association (NSGGA) and Earth Science Teachers' Association (ESTA) have published a selection of the fieldwork notes and field teaching exercises produced by David during his time at Keele University. These can be accessed from the NSGGA website: [www.esci.keele.ac.uk/nsgga/dbt.html](http://www.esci.keele.ac.uk/nsgga/dbt.html)

Many were evening visits under the auspices of the Keele Science and Technology Teachers' Centre – Geology Section (KSTTC). Some are parts of a series entitled "Geology in the Field - Fieldwork near the Potteries". Others were for the NSGGA or other Geology groups, and many were "joint" ventures. Several were repeated and updated.

The original criteria for selection was that the field notes and teaching exercises should not have been published elsewhere, though this was relaxed to include two ESTA and two British Association for the Advancement of Science Conference visits. There are also examples of David's original photographs and tracings of sections at Hulme Quarries, Park Hall and [soon to be uploaded] the M6 cutting at Kingswood Bank, Trentham.

The field Guide of the 1997 ESTA Conference at Keele was edited by David and is included in its entirety. Part 1 includes David's Park Hall trip. Part 2 includes David's Charles Darwin in North Staffs trip.

Missing are notes from several KSTTC evening visits. If you think you may be able to help or would simply like to see the "missings" list, please contact John Reynolds: [jr.reynolds1@virginmedia.com](mailto:jr.reynolds1@virginmedia.com)

Many thanks to members of NSGGA and ESTA for their help, esp. Ian Stimpson: [i.g.stimpson@keele.ac.uk](mailto:i.g.stimpson@keele.ac.uk) for the uploading and Don Steward: [don.steward@stoke.gov.uk](mailto:don.steward@stoke.gov.uk) for holding the original paper archive and many of David's specimens at the Potteries Museum and Art Gallery: [www.stokemuseums.org.uk](http://www.stokemuseums.org.uk)

Not scanned, but held in the paper archive, is David's published fieldwork for the 1983 course organised by Poroperm:

Poroperm Excursion Guide No 4:

The Permo-Triassic Sediments of the Cheshire and Adjacent Basins.

Thompson, D.B.

1983. 129pp

Poroperm-Geochem Ltd. Chester. ISB No. 0-950-7-253-5-8

David also contributed to several Geologists' Association Guides, including No 6. Liverpool: Permo-Triassic Rocks of the Wirral and Adjacent Areas. No 7. Manchester: Four itineraries in Triassic Rocks: Frodsham Area, Styal Area & two on Alderley Edge.

Available from: [www.geologistsassociation.org.uk](http://www.geologistsassociation.org.uk)

## References

- Collins, M., Fleming, A., Reynolds, J., 1989. David Thompson – An appreciation. *Teaching Earth Sciences* 14.2, 42
- King, C., 2014. David Barnard Thompson 1932 – 2013. Geoscientist and Geoscience Educator. *Bulletin of the North Staffordshire Group of the Geologists' Association* 108, 4 - 9
- King, C., 2014. David Barnard Thompson 1932 – 2013. Geoscientist and Geoscience Educator. *Teaching Earth Sciences* 39.1, 7 – 9.
- Worsley, P., 2014. Obituary: David Barnard Thompson (1932 – 2013). *Proceedings of the Geologists' Association* 125, 258 - 261

*John R Reynolds*

## The Fieldwork Archive in date order as on the website:

- c1974 [Undated ?1972 original]: KSTTC. Pocket Deposits of S Derbyshire.
- 1975 Sep 22 likely KSTTC. Hulme Quarries & Geological Fieldwork. Notes & exercises from beginner to A-Level.
- 1977 Definitive N-S section of E face of Hulme Quarry, Longton, Stoke-on-Trent. Photographs and tracings of the entire East face, which became a SSSI. Ref to bottom section of Bunter Pebble Beds
- 1981 Jun 8 Mon [Undated]: KSTTC. Fieldwork around the Potteries: The Kingswood Bank [Trentham & M6] – Beech area.
- 1981 Sep 21-5 Second International Conference on Fluvial Sedimentology, Keele. Informal Local Field Excursion – Scythian Fluvial Sedimentology in North Staffs.
- 1983 Jun 7 Tues. KSTTC. Geological Excursions to the Cheadle Area [all Triassic]
- 1984 Jun 5 Tues KSTTC. XI The area north east and east of Cheadle, Staffs [mostly Carboniferous, including Cauldon]
- 1985 Oct 7 Mon [Undated]: KSTTC/NSGGA. Gas & Oil Investigation exercise, based on Mow Cop & Lask Edge. Developed for a Staffs LEA project.
- 1986 Sep 8 Mon. KSTTC. XVI The North Staffordshire Dyke Swarm –Swynnerton.
- 1987 Jun 3 Wed [Undated]. KSTTC/NSGGA. Copper mining in NE Shropshire – Hodnet, Hawkstone Ridge etc.
- 1987 Sep 8 Tues KSTTC/NSGGA. XVIII The North Staffordshire Dyke Swarm - Darwin's Dykes.
- 1988 Jun 8 Weds.[Undated] KSTTC/NSGGA. Copper mining in NE Shropshire (continued). Grinshill, Clive, Yorton & Pim Hill
- 1989 June 7 Weds. KSTTC/NSGGA. Geology & Copper Mining on Alderley Edge

1990 Earth Science out of doors. Discussion of teaching strategies for use in the field, based on Alderley Edge.

1991 June 26 Weds. NSGGA. Geology & Copper Mining on Alderley Edge, including underground visit. Same as 1989 Sept ESTA Conference, but more diagrams & references

1991 July 26 Sun. N Staffs, visit by Hull Geological Society. Notes & maps

1993 Aug 30 Mon. BAAS(Section C) field excursion M5. Lord John Cadman of Silverdale, oil, Darwin's dykes, early geophysics.

c1993 Science Out of Doors. Fieldwork opportunities around "Keele Comprehensive School"

1993 Sep 1 Weds. BAAS(Section C) field excursion W1. Murchison's and Darwin's dykes in North Staffordshire.

1993 Sep 5 Sun. Shropshire Geol. Soc. Preston Brockhurst and Bridgnorth areas: Kinnerton-Bridgnorth Sandstone & Chester-Kidderminster Conglomerate Formations.

1993 Sept 12 Sun. Manchester Geological Association field excursion: an introduction to the geology of the area around Stoke-on-Trent. (covers Madeley, Maer, Butterton + Park Hall)

1996 June 6 Thurs, NSGGA with John Rees, BGS. Apedale-Astbury Lower Carboniferous Volcanoes and the SE margins of the Permo-Triassic Cheshire Basin at Grotto Wood, Merelake Hill and Kent Hill.

\*1997 Sep 20 Sat. ESTA Conference, Keele Excursion D3- Park Hall Country Park, Weston Coyney: Secondary Workshop.

\*1997 Sep 21 Sun. ESTA Conference, Keele, 30th Anniversary Celebratory Field Excursion. The Educational opportunities resulting from Charles Darwin's presence in North Staffordshire c 1815-1842.

\* these two are included in the 1997 ESTA Conference Field Guide

1999 Aug 21 Sat. NSGGA & Lancashire Group, GA to Alderley Edge.

2000 Mar 26 Sun, NSGGA [Golden Jubilee Event] at BAAS National Science Week 17-26 Mar 2000. Billed as The Darwin Trail. Chas Darwin in N Staffs – the origins of transmutations, soils and dykes – in relation to present-day problems of conservation around Maer and the Maer Hills Update of 1993 & 1999 visits.

### Correction to Bulletin 108:

David Thompson was a founder member of the Association of Teachers of Geology [now Earth Science Teachers' Association], not NSGGA, as stated on p.4 of the January 2014 Bulletin, No 108.

## Other Societies

### Geologists' Association

Lectures are held at Geological Society of London, in Burlington House, Piccadilly but the lectures are available to view by members of the GA online via their website.

**Friday 13 February @ 18:00**

Overtuning our understanding of the Ediacaran fauna - Dr Alexander Liu (Cambridge University)

**Friday 6 March @ 18:00**

When coccoliths become oil the hard way: a food chain in the Kimmeridge Clay of Dorset - Dr Dave Martill & Steve Etches (Portsmouth University)

More details at [www.geologistsassociation.org.uk](http://www.geologistsassociation.org.uk)

### Black Country Geological Society

Indoor meetings are held at Dudley Museum & Art Gallery, St James's Road, Dudley

**Monday 19 January @ 20:00**

It's... a black country time machine. - Chris Broughton (Wolverhampton Museum)

**Monday 16 February @ 20:00**

A few volcanoes in Lanzarote'. Speaker: Les Drinkwater – Les Drinkwater

**Monday 16 March @ 19:30**

AGM followed by Minerals and Gems of the Cairngorms - Roy Starkey.

More details at [www.bcgs.info](http://www.bcgs.info)

### East Midlands Geological Society

Indoor meetings are held at lecture theatre B3, Biology building at the University of Nottingham

**Saturday 17 January @ 18:00**

Life just got complicated: the Ediacaran world revealed in Charnwood Forest – Dr Philip Wilby

**Saturday 14 February @ 18:00**

William Smith - Followed by the Society's Annual Dinner – Prof Hugh Torrens

**Saturday 21 March @ 18:00**

Annual General Meeting at 6.00pm followed by - The North Anatolian Fault – Ekbal Hussain

More details at [www.emgs.org.uk](http://www.emgs.org.uk)

### East Midlands Regional Group of the Geological Society

Room N108, University of Derby (Kedleston Road campus)

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional Groups/East Midlands](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/East%20Midlands)

### Liverpool Geological Society

Indoor meetings are held at Lecture Theatre 137, James Parsons Building, Liverpool JMU, Byrom Street, Liverpool, L3 3AF

**Tuesday 20 January @ 19:30**

Aspects of Climate Change – Prof Mark Williams

**Tuesday 3 February @ 19:30**

Icelandic Floods – Rob Duller

**Tuesday 17 February @ 19:30**

Modelling the Intrusion of Igneous Rocks - Janine Kavanagh

**Tuesday 3 March @ 19:30**

William Smith in Yorkshire – Prof Hugh Torrens

**Tuesday 17 March @ 19:30**

British Ice Sheet – Richard Chiverall

More details at [liverpoolgeologicalsociety.org.uk](http://liverpoolgeologicalsociety.org.uk)

### Manchester Geological Association

Indoor meetings are held at the Williamson Building, University of Manchester

**Saturday 17 January @ 10:30** The Broadhurst Lectures: The Mineral World (Samuel Alexander Arts Theatre, Manchester University)

**Wednesday 11 February @ 19:00** AGM Evolution of the Mars Atmosphere and Hydrosphere - Dr Ray Burgess (Manchester Geological Association)

**Wednesday 4 March @ 18:30** Coastal Dunes and Climate Change - Dr Paul Rooney (Liverpool Hope University)

More Details at [www.mangeolassoc.org.uk](http://www.mangeolassoc.org.uk)

### North West Regional Group of the Geological Society

**Wednesday 14 January @ 18:30** Eurocodes, BS5930 and Ground Investigation – Are you up to date? – Prof David Norbury – (at The Centre, Birchwood, Warrington

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional Groups/North West](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/North%20West)

### Shropshire Geological Society

Indoor meetings are held at The Shire Hall, Shrewsbury at 19:30

**Wednesday 14 January @ 19:30** Ediacaran fauna of Charnwood Forest - Dr Phil Wilby (BGS)

**Wednesday 11 February @ 19:30** Instability in the Ironbridge Gorge - Neal Rushton (Telford)

**Wednesday 11 March @ 19:30** The 60 million year magma chamber on Rhum - Dr Brian Driscoll (Manchester University)

More details at [www.shropshiregeology.org.uk/SGS/SGSintro.html](http://www.shropshiregeology.org.uk/SGS/SGSintro.html)

### Warwickshire Geological Conservation Group

Indoor meetings are held at St Francis Church Hall, Warwick Road, Kenilworth CV8 1HL

**Wednesday 21 January @ 19:30** Sub-ice volcanism, ice sheets and the survival of Life - the importance of Antarctica's volcanoes – Prof. John Smellie (Leicester)

**Wednesday 18 February @ 19:30** Roaming on Mars – Prof. Sanjeev Gupta (Imperial College)

**Wednesday 18 March @ 19:30** Chips off the old block: a geological perspective on the Stonehenge bluestones – Dr Rob Ixer (Institute of Archaeology, University of London)

More details at [www.wgcg.co.uk](http://www.wgcg.co.uk)

### **West Midlands Regional Group of the Geological Society**

Indoor Meetings at Lapworth Museum of Geology, Birmingham University

**Tuesday 13 January @ 18:30**

Near Surface Geophysics: As Used in  
Geotechnical Site Investigations – Dr Simon  
Hughes (TerraDat) – at Atkins (The Axis)  
Birmingham

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional  
Groups/West Midlands](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/West%20Midlands)

### **Western Institute of Mining and Minerals**

Indoor meetings are held at the William Smith Building, Keele University

**Monday 2 February @ 19:00**

Winsford Salt Mine Update and Innovations –  
Gordon Dunn (Compass Minerals)

**Monday 2 March @ 19:00**

Chalk Mines and Solution Features in Hertfordshire  
and Problems they Cause – Clive Edmunds (Peter  
Brett Associates)

More details at [www.iom3.org/wimm](http://www.iom3.org/wimm)

**NSGGA - Next Committee Meeting:****Thursday January 22, 2015 @ 19:00**

In room WS1.44, the William Smith Building, Keele University

**Contacts List: NSGGA Committee 2014-15****Chairman: Dr Patrick Cossey**

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e-mail: [i.g.stimpson@keele.ac.uk](mailto:i.g.stimpson@keele.ac.uk)**Bulletin Sec.: Dr Ian Stimpson,**

Geography, Geology &amp; the Environment, Keele University Tel. 01782 733182

e-mail: [i.g.stimpson@keele.ac.uk](mailto:i.g.stimpson@keele.ac.uk)**Honorary Life Member: Ann Myatt****Executive Committee (honorary):**

Dr. Colin Exley; Terry Jones.

**Executive Committee (elected):**

Dr Lloyd Boardman; Dr Stuart Egan; Janet Osborn (Minutes Secretary); John Reynolds; Barbara Kleiser; Christina Bourne; Tony Marks; Peter Jones

**Executive Committee (co-opted):**

Don Steward, Vicky Ward (John Myers Awards); Becca Wiltshire (Keele GeoSoc).

**NSGGA web pages:** [www.esci.keele.ac.uk/nsgga](http://www.esci.keele.ac.uk/nsgga)



## Buffet & Sherry Reception Booking Form

Thursday 19 February 2015 at 18:00

A two-course sit down buffet meal will precede the talk

**"Sinking Cities"**

**Speaker: Dr Tony Waltham (ex Nottingham-Trent)**



The cost is **£12** with a free glass of sherry and a glass of wine.

The sherry reception will start at 18:00 on the Upper Foyer of the William Smith Building, Earth Sciences & Geography, Keele University and the buffet will start at 18:30.

If you would like to attend, please return the booking form below **with payment** (which needs to arrive before **Friday January 23, 2015**)

to:

**Brenda Kay,**  
**9 Copthorne Drive, Audlem, Crewe, Cheshire, CW3 0EQ**  
**Tel. 01270 811650**

**Early booking is essential, as numbers have to be pre-booked with the caterer**

To book a meal, please enclose a cheque (payable to NSGGA) for the full amount

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I/We would like to book \_\_\_\_ places for the Buffet on Thursday, February 19, 2015

I/We enclose a cheque for £ \_\_\_\_\_ payable to NSGGA

Name/s

Address

Telephone

## NSGGA MEMBERSHIP RENEWAL NOW DUE FOR 2015



Fossils, Rocks & Minerals  
 Summer Field-Trips  
 Winter Talks  
 Site Conservation  
 Regular Newsletters

Name

Address

Telephone

e-mail address

Would you be willing to receive your Bulletins by e-mail yes  no

Ordinary (Full)	£13.00	<input type="checkbox"/>
Family *	£15.00	<input type="checkbox"/>
Retired/Unemployed	£10.00	<input type="checkbox"/>
Student **	£ 3.00	<input type="checkbox"/>

John Myers Award Fund\*\*\* contribution of £.....

\* For insurance purposes, please list the names of all members of the household to be included:

\*\* Students please name your **full-time** course:

Cheques should be made payable to the: "**NSGGA**" and sent to:  
 David Osborn (NSGGA Membership Secretary),  
 Stretton, 2 Croyde Place, Meir Park, Stoke-on-Trent, ST3 7XD.  
 Tel: 01782 396692. e-mail: [david.d.osborn@talktalk.net](mailto:david.d.osborn@talktalk.net)

For our records, are you currently a member of the national GA ? yes  no

\*\*\* Two John Myers Awards are presented annually to students at Keele University. John Myers gave a 60-year contribution to the understanding of Geology in North Staffordshire and beyond. From 1927 he taught at Wolstanton Grammar School for 40 years and began evening classes at "Stoke Tech" [now Staffordshire University], encouraging members to join the Geologists' Association of London. Thus was born the NSGGA in 1948. In the 1950s and 60s he helped Keele University Postgraduate Certificate of Education students with a teaching methods course, joining the staff of the Education Department in 1967 on his retirement from teaching. Also in 1967, he was a Founding Father of the Association of Teachers of Geology that had its inaugural meeting at Keele, at which he was elected Treasurer, a post he held for 10 years. His daughter Ann has generously funded the John Myers Awards in his memory.